National Aeronautics and Space Administration

KSC's Technology Capability Areas

NASA KSC is seeking partners in joint technology development projects that align with KSC's technology capability areas.

Objective: Develop and commercialize technologies to address NASA's challenges and US National Priorities through strategic partnerships with industry, academia, other Government agencies, and national laboratories.

Technology Areas of Interest *(in no specific order)*

Storage, Distribution, and Conservation of Fluids
- Cryogenic storage and transfer
- Thermal insulation systems
- Cryocooler integration and novel heat-transfer components

Materials for Life Cycle Optimization
- Self-repair systems
- Corrosion detection and prevention
- Nondestructive evaluation
- Materials for extreme environments
- Multifunctional composites

Life Sciences, Habitation Systems, and Human Research
- Closed-loop support systems
- Habitat environment
- Basic life sciences
- Human-based research

Remediation and Ecosystem Sciences
- Environmental remediation and restoration
- Hazardous materials mitigation
- Renewable energy and other sustainable technologies

In Situ Resource Utilization and Surface Systems
- Regolith beneficiation and handling
- Resource extraction and prospecting
- Robotic surface excavation, preparation, and modification

Life Cycle Optimization of Products, Projects, and Programs
- System process analysis
- Modeling and simulation technologies
- Complete life cycle simulations
- Fusion of engineering design, systems, and data visualization
- Supply chain management
- Integrated systems health managemen

partnerships

Space Launch and Suborbital Technologies
- Operable, durable pads and accessories
- Innovative handling, transport, and assembly systems
- Efficient propellant and gas management
- Development of advanced protective equipment
- Advanced launch site concepts
- Space vehicle operations development and demonstrations
- Energy and power systems
- Tracking, timing, and navigation technologies

Tracking, Timing, Communications (TT&C) and Navigation Technologies
- RF and optical communications technologies
- Internetworking technologies
- Tracking, Ttiming, and navigation technologies

Technical Capabilities

Storage, Distribution, and Conservation of Fluids
- Cryogenics Test Laboratory
- Thermal Analysis and Modeling

Materials for Life-Cycle Optimization
- Advanced protective equipment testing and development
- Applied Chemistry Laboratory
- Applied Physics Laboratory
- Beach Corrosion Test Site
- Corrosion Technology Laboratory
- Materials failure analysis and evaluation
- Nondestructive Evaluation Laboratory
- Polymer Science and Technology Laboratory

Life Sciences, Habitation Systems, and Human Research
- Biomedical Research Laboratory
- Closed-loop life support and habitation
- Controlled-environment plant research chambers
- Medical device development and testing
- Postflight Biomedical Data Collection Facility
- Sustainable bioregenerative systems
- Digital light scattering system

Remediation and Ecosystem Sciences
- Environmental Microbiology Laboratory
- Molecular and Microbiology Laboratories

In Situ Resource Utilization and Surface Systems
- Design Visualization Laboratory
- Dust mitigation technologies
- Granular Materials and Regolith Operations Laboratory
- Electrostatics and Surface Physics Laboratory

Life Cycle Optimization of Products, Projects, and Programs
- Center for life cycle design
- Modeling and simulation

Space Launch and Suborbital Technologies
- Engineering design and analysis for ground and launch structural systems
- Launch Equipment Test Facility
- Mechanical, Structural, and Controls Development Laboratory
- Prototype Development Laboratory

Tracking, Timing, Communications (TT&C) and Navigation Technologies
- Telescience Laboratory

Please contact us if you are interested in collaborating with KSC on joint development projects.

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